

LESSON 4

Finding the Right Physical Activities for Me

Student Learning Objectives:	National Health Education Standards:
<ul style="list-style-type: none"> Describe moderate-intensity physical activities that are personally enjoyed and that can be enjoyed for a lifetime. 	<ul style="list-style-type: none"> Self Management
<ul style="list-style-type: none"> Analyze the influence of television, computer, and video games on physical activity. 	<ul style="list-style-type: none"> Analyzing Influences

Lesson Synopsis

Introduce this lesson on physical activity by exploring students' interests and their levels of physical activity. Review the recommendations for physical activity. Review the definition of moderate-intensity activities and identify examples. Contrast calories burned by watching television, using the computer, and playing video games compared to moderate-intensity activities. Identify a variety of physical activities that can be done under different conditions. Select activities to help reach personal goals to improve physical activity. Identify two moderate or vigorous physical activities that fit personal goals for physical activity. Identify community physical activity opportunities.



Activity	Time	Materials Needed
Introduction	10 minutes	<p>Teacher Manual Resources</p> <ul style="list-style-type: none"> Slide Master: "My Interests" <p>Supplied by the Teacher</p> <ul style="list-style-type: none"> Pens or pencils Writing paper Chart paper Markers Slide Projector
Input	10 minutes	<p>Teacher Manual Resources</p> <ul style="list-style-type: none"> Teacher Reference: "Calories Burned During Physical Activities" Teacher Reference: "Moderate-Intensity Physical Activity" Slide Master: "Moderate-Intensity Physical Activity" Slide Master: "Calorie Contrast" <p>Supplied by the Teacher</p> <ul style="list-style-type: none"> Pens or pencils Writing paper Chart paper with list of interests generated in the Introduction Markers Slides Projector

Application	20 minutes	<p>Health Education Resources</p> <ul style="list-style-type: none"> • Cards: "Physical Activity Cards," four sets, Michigan Model for Health Clearinghouse <p>Teacher Manual Resources</p> <ul style="list-style-type: none"> • Teacher Reference: "Physical Activity Cards List" • Slide Master: "Conditions for Physical Activity" • Teacher Master, Set of Four: "Conditions for Physical Activity" (Suggestion) • Student Worksheet: "My Ideas for Healthy Eating and Physical Activity," from Lesson 3 <p>Supplied by the Teacher</p> <ul style="list-style-type: none"> • Chart paper • Markers • Pens or pencils • Slide • Projector
Closure	5 minutes	<p>Teacher Manual Resources</p> <ul style="list-style-type: none"> • Family Worksheet: "Finding Time and Motivation for Physical Activity" <p>Supplied by the Teacher</p> <ul style="list-style-type: none"> • List of community physical activity opportunities
TOTAL	45 minutes	

Preparation

Prior to the Lesson	<ul style="list-style-type: none"> • Obtain lists of local resources that offer opportunities for physical activity. Some organizations to check with are: city or township chamber of commerce, local Michigan State University Extension office, local health department, and local parks and recreation agencies. You may find some information on the Internet if you search by city or county. If you are unable to locate a list, prepare one and include resources such as community parks, parks and recreation departments, YMCA, school intramural programs, sports complexes, community centers, public swimming pools, parks, trails, and other locations where youth can be physically active.
For Introduction	<ul style="list-style-type: none"> • Prepare a slide of the slide master, "My Interests."
For Input	<ul style="list-style-type: none"> • Read the teacher references, "Calories Burned During Physical Activities" and "Moderate-Intensity Physical Activity." • Prepare slides of the slide masters, "Moderate-Intensity Physical Activity" and "Calorie Contrast."
For Application	<ul style="list-style-type: none"> • Decide how you will divide your class into four small heterogeneous groups. • Prepare four large charts with one of the following titles on each: "Indoor or Outdoor," "Inexpensive or Requiring Equipment," "Little Space or Open Space," and "Done Individually or Done With Others." Draw a line down the middle of each chart. Place the charts on tables in separate locations around the room. • Read the teacher reference, "Physical Activity Cards List." • Prepare a slide of the slide master, "Conditions for Physical Activity." • Duplicate one copy of each of the four teacher masters in the set, "Conditions for Physical Activity." (Suggestion)
For Closure	<ul style="list-style-type: none"> • Duplicate enough copies of the list of community physical activity opportunities so that each student will have one. • Duplicate the family worksheet, "Finding Time and Motivation for Physical Activity," for each student to take home.

LESSON PROCEDURE







Introduction: Introduce this lesson on physical activity by exploring students' interests and their levels of physical activity.

10 minutes

Instructional Steps	Script and Detailed Directions
<p>List things students enjoy doing and rank them by level of enjoyment and activity, using the slide, "My Interests."</p>	<p>Display the first line on the slide, "My Interests."</p> <p><i>Please get out a piece of paper and write down five things you enjoy doing.</i></p> <p>Pause while students record their ideas.</p> <p>Display the second line on the slide, "My Interests."</p> <p><i>Now, number them from your most favorite interest to least favorite, with "1" being your most favorite and "5" being your least favorite on this list.</i></p> <p>Pause while students rank their favorite interests.</p> <p><i>Different interests require different amounts of effort. Some activities are sedentary. How would you define sedentary?</i></p> <p>Answer: Sedentary means "requiring sitting or little activity."</p> <p>Display the third line on the slide, "My Interests."</p> <p><i>Next, identify each of your interests as being sedentary or active, with "S" for sedentary, "L" for low activity, "M" for moderate activity, and "V" for vigorous activity. If you aren't sure of the difference between low, moderate, and vigorous, a guess is fine for now. We'll clarify the difference later today.</i></p> <p>Pause while students rank their ideas by level of activity.</p>
<p>Collect a class list of students' favorite interests and identify them by activity level.</p>	<p>Ask students to call out some of the interests they ranked "1" as their favorites. Record their ideas on a piece of chart paper.</p> <p>Ask students to identify whether each interest on the chart is sedentary, low activity, moderate activity, or vigorous activity. Mark them "S," "L," "M," or "V."</p> <p><i>Looking at our class list of favorite interests, would you say we tend to enjoy more sedentary interests or active interests?</i></p> <p>Allow students to discuss the question.</p> <p><i>Now, look at your personal list. Answer these questions quietly for yourself. Are your top two favorites active or sedentary? How many active interests are on your list? How do you think this affects your ability to get the recommended 60 minutes of physical activity each day?</i></p> <p>Allow students to discuss the questions.</p>
<p>Introduce the lesson on improving physical activity.</p>	<p><i>During our last lesson, you identified two goals to improve your healthy eating and physical activity. Today, we will explore ways to reach your physical activity goals.</i></p> <p>Redistribute the folders if you collected them.</p>

Input: Review the recommendations for physical activity. Review the definition of moderate-intensity activities and identify examples. Contrast calories burned by watching television, using a computer, and playing video games compared to moderate-intensity activities.


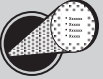
10 minutes

Instructional Steps	Script and Detailed Directions
<p>Review the recommendation for physical activity, using the slide, “Moderate-Intensity Physical Activity.”</p> 	<p><i>If you remember how many days of the week you should get physical activity, stand up and hop on one foot ten times.</i></p> <p><i>If you remember how many minutes of physical activity you should get each day, stand up and hop on the other foot ten times.</i></p> <p><i>If you remember what intensity your physical activities should be, stand up and reach to the ceiling and then touch your toes ten times.</i></p>  <p>Young people should be physically active 60 minutes every day. Most of the 60 minutes should be either moderate- or vigorous-intensity aerobic physical activity.</p> <p>The recommendations also suggest that 3 days a week should include:</p> <ul style="list-style-type: none"> • vigorous-intensity physical activity. • muscle-strengthening activities, like climbing. • bone-strengthening activities, like jumping. <p>Display the first sentence on the slide, “Moderate-Intensity Physical Activity.” Review the recommendation.</p> <p><i>If you were correct, slap each knee with your opposite hand five times.</i></p>  <p>If you have space limitations, use another type of signal.</p> <ul style="list-style-type: none"> • Hold up the number of fingers that represent the number of days you should be physically active. • Hold up the number of fingers that represent the number you would need to multiply by ten to tell me how many minutes you should be physically active each day. • Reach your hands to the ceiling if you remember what intensity your physical activities should be. • Pat yourself on the back if you were accurate.
<p>Review the definition of moderate-intensity physical activity, using the slide, “Moderate-Intensity Physical Activity.”</p> 	<p><i>Who remembers how we defined moderate-intensity physical activity in our last health lesson?</i></p> <p>Call on a few students to share their ideas.</p> <p>Display the second part of the slide, “Moderate-Intensity Physical Activity.” Explain two ways to tell if an activity is moderately intense.</p>  <p>If students are curious, use the teacher reference, “Moderate-Intensity Physical Activity,” to explain two additional ways to determine moderate-intensity physical activity.</p> 

<p>Categorize activities of various intensities, using the list of interests generated in the Introduction to this lesson.</p>	<p>Refer students to the list of interests they generated during the Introduction.</p> <p><i>Remember: different physical activities require different amounts of effort. Sedentary interests require very little effort. The interests we marked “L” for low activity are considered low intensity and do not require much effort. They probably do not raise your heart rate or cause you to breathe faster. The ones we marked “M” for moderate activity would be considered moderate-intensity activities. The ones we marked “V” for vigorous activity would be considered vigorous-intensity. Vigorous activities cause you to breathe so hard it is difficult to talk.</i></p> <p>Do you still agree with the way we marked these interests, or do you think we need to change some of them?</p> <p>Alter the list as needed.</p> <div data-bbox="557 552 643 648" data-label="Image"> </div> <p>Refer to the teacher reference, “Calories Burned During Physical Activities,” for guidance in categorizing the students’ interests by activity level.</p> <div data-bbox="557 743 643 814" data-label="Image"> </div>
<p>Contrast sedentary activities with moderate-intensity physical activities, using the slide, “Calorie Contrast.”</p> <div data-bbox="164 1024 264 1104" data-label="Image"> </div>	<p><i>Activities that take more effort burn more energy, or calories. Consult with your neighbor and guess how many calories are burned in an hour of a sedentary activity, such as watching TV, using a computer, or playing a video game. Guess how many calories are burned in an hour of moderate-intensity activities. Record your guesses on a piece of paper.</i></p> <p>Call on a few students to share their ideas.</p> <p>Display the slide, “Calorie Contrast.”</p> <p>What difference does this make to your health?</p> <p>Answers:</p> <ul style="list-style-type: none"> • If you don’t get enough physical activity, it can be difficult to maintain a healthy weight. • If you eat 3500 calories more than you burn off with physical activity, you will gain a pound. <p><i>Health experts recommend that you limit your sedentary activities, such as watching TV, using a computer, and playing video games to no more than two hours a day so you will have time to be physically active.</i></p>

Application: Identify a variety of physical activities that can be done under different conditions. Select activities to help reach personal goals to improve physical activity.

20 minutes

Instructional Steps	Script and Detailed Directions
<p>Review students' physical activity goals using the student worksheet, "My Ideas for Healthy Eating and Physical Activity," from Lesson 3.</p> 	<p><i>Please get out your student worksheet, "My Ideas for Healthy Eating and Physical Activity." During our last health lesson, each of you identified a goal to improve your physical activity. Please keep your goal in mind as we explore ways to get physical activity.</i></p>
<p>Identify a variety of conditions that affect the type of physical activity that can be done using the slide, "Conditions for Physical Activity."</p> 	<p><i>One of your challenges will be finding physical activities that fit with your lifestyle. Perhaps you have specific conditions that impact the kinds of physical activity you can do. A "condition" is something that affects what you choose to do. Listen as I describe some of these conditions.</i></p> <p>Display the slide, "Conditions for Physical Activity," and each of the four charts placed around the room.</p> <ol style="list-style-type: none"> <i>1. Indoor or Outdoor: Some activities can be done indoors when you aren't able to go outside. Others can be done outdoors at school, a park, or in your neighborhood.</i> <i>2. Inexpensive or Requiring Equipment: Some activities cost nothing because they don't require equipment or a class fee. Other activities have an expense because you need equipment or have to pay an enrollment fee.</i> <i>3. Little Space or Open Space: Some activities can be done in a small area, such as your room. Others need more space.</i> <i>4. Done Individually or Done With Others: Some activities can be done when you are alone. Others require additional people in order to make them work.</i>
<p>Form four small groups. Categorize physical activities according to the conditions in which they can be done.</p>	<p>Form four small groups. Assign group roles: leader and card dealer.</p> <p><i>Together, we'll come up with four menus of ideas so we can find ways to get physical activity under many different conditions.</i></p> <p>Assign each group to a chart. Provide each group with a deck of "Physical Activity Cards," and explain their task.</p> <p><i>Your small group will focus on the kinds of physical activities that fit the conditions on your chart. I have given you a deck of Physical Activity Cards. Each card has a low, moderate, or vigorous physical activity on it. It also tells how many calories are burned in an hour.</i></p> <p><i>Card dealers, you will deal out your deck of cards to all your team members. Leaders will ask each group member to read one of his or her cards. If it is printed in blue ink, it is a low-intensity physical activity. After reading the card, set it aside. If it is printed in green or red ink, the group will decide if the activity can be done under one or both of the conditions on their chart. Then, place the card under the appropriate heading. If it can be done under both conditions, place the card in the middle. The activities printed in green ink are moderate-intensity physical activities. Those printed in red ink are vigorous.</i></p>



If placing the cards on a chart is awkward given your classroom arrangement, have students use the teacher masters, “Conditions for Physical Activity.” These are mats that can be placed in four different locations allowing the cards to be stacked. However, it will be more difficult for students to see the variety of activities that fit the condition. Another option is to have students write the name of the activity on the chart in the correct location.

*For example, let’s use aerobics, such as kickboxing, as an example. **Is kickboxing done indoors or outdoors?***

Answer: It is usually done indoors, so this group would place that card on their chart under the heading “Indoors.”

Is kickboxing expensive or inexpensive?

Answer: It is inexpensive if you do it on your own or if you check out a video from the library, but expensive if you take a class that costs money or buy an exercise video. This group would place the card in the middle because it can be both.

What kind of space does kickboxing require?

Answer: It only requires a small area. This group would place their card under “Little Space.”

Is kickboxing done in a group or alone?

Answer: It can be done in a group or alone. This group would place the card in the middle because it can be both.

You will continue reading one card at a time until all have been set aside because they are low intensity or placed on the chart. Your group will have ten minutes to categorize your physical activity cards.

After ten minutes, ask students to give you their attention.

Select moderate or vigorous physical activities that help meet personal goals for improving physical activity.

Beginning with your own group’s chart, please select some physical activities that fit the conditions you have for being active. Record them on the back of your worksheet.

In two minutes, you will rotate clockwise to the next chart and select more activities that fit your personal situation. For now, try not to evaluate the activities. List them all as options.

We will rotate until you have visited all four charts, selecting physical activities that can be done under the conditions you have for being active.



If you have used the teacher masters, “Conditions for Physical Activity,” and the cards are stacked and not visible, try one of these options:

- have students spread out the cards keeping them grouped in their categories next to the teacher master and proceed with groups rotating to each set, or
- have each group report on how they classified the activities. After each report, have students select some physical activities that fit the conditions they have for being active.

Begin having the small groups rotate from chart to chart. Every two minutes, signal the groups to move to the next chart. Continue until all four groups have visited all four charts.



There may be some inconsistencies in the students' lists. For example, running may be an inexpensive activity that they record on their worksheet. However, they live in a neighborhood where it isn't safe to run. Rather than remove running, suggest they find a safe indoor area in which to run. Students will be selecting activities to consider during the Closure of this lesson.

These may not be the only conditions that impact your choice of physical activity. Other conditions you may consider as you select physical activities are how available or accessible certain activities might be and any physical or time restraints you have.

Time restraint is a major reason many people give for not being active. Most of us need to find time that is not committed to something else and dedicate it to being physically active or try to combine commitments to find time for activity. Being active in 10-minute "doses" is another option.




Model using time wisely and incorporating physical activity by having students work on a project in pairs and discuss the project as they walk around the track. They can take a small pad of paper to use for taking notes.



Have students calculate how many calories are expended by walking one-quarter mile or up and down the school stairs. Create signs stating the calories burned and post them around the school to encourage physical activity. Identify a one-quarter mile walking course in the building or school grounds. Encourage students to walk it during free time.

Closure: Identify two moderate or vigorous physical activities that fit personal goals for physical activity. Identify community physical activity opportunities.

5 minutes

Instructional Steps	Script and Detailed Directions
<p>Identify two moderate or vigorous physical activities that fit personal goals for physical activity using the student worksheet, "My Ideas for Healthy Eating and Physical Activity," from Lesson 3.</p> 	<p><i>Now you have quite a list of physical activities on the back of your worksheet. Review your goal and identify two physical activities that you think will help you reach your goal to improve physical activity. Circle them. You will use them in an upcoming lesson.</i></p>

<p>Share a list of community physical activity opportunities.</p>	<p>Distribute the list of community physical activity opportunities you developed prior to this lesson.</p> <p><i>Share this list with your family and discuss which of the opportunities you could participate in. Are there additional physical activity options you know about that we can add to this list?</i></p> <p>Call on students to share their ideas and add them to their lists.</p> <div data-bbox="568 359 659 464" data-label="Image"> </div> <p>Remind students to bring in food packages and restaurant nutrition content pamphlets.</p> <div data-bbox="574 520 652 590" data-label="Image"> </div> <p>Have students create display boards showing community physical activity locations and resources. Use the display boards as part of an advertising campaign. They could add songs or jingles to create a presentation to show or tape for other classes.</p> <div data-bbox="574 709 652 779" data-label="Image"> </div> <p>Ask students to bring foods to class that are under 100 calories so that classmates can try them. This is an extension activity in Lesson 6 and reinforces use of food labels. Be sure to follow your district's policies related to food shared in the classroom.</p> <p>Collect the students' folders or ask students to bring them to each class.</p>
<p>Distribute the family worksheet, "Finding Time and Motivation for Physical Activity."</p> <div data-bbox="159 1129 256 1203" data-label="Image"> </div>	<p><i>Please take this worksheet home. It involves talking with a family member and a friend about being physically active. Have the individuals you talked with sign the worksheet. Then, bring it back to put in your folder.</i></p>
<p>Introduce the next lesson on healthy weight.</p>	<p><i>In our next health lesson, we will learn about body types and how to maintain a healthy weight.</i></p>





My Interests



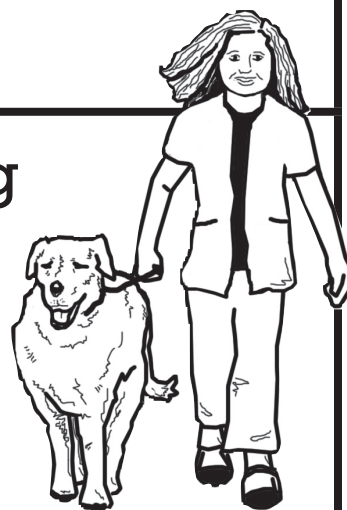
1. List five things you enjoy doing.

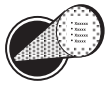
2. Number your interests from your most favorite to least favorite, with...

- “1” being your most favorite and
- “5” being your least favorite on this list.

3. Identify each interest as being sedentary or active, with...

- “S” for sedentary,
- “L” for low activity,
- “M” for moderate activity, and
- “V” for vigorous activity.





Moderate-Intensity Physical Activity

Children and teens need at least 60 minutes of moderate-intensity physical activity every day of the week.



Moderate-intensity physical activity:

1. **Talk test:** Your heart and/or breathing rates increase, but you can still talk normally.
2. **Borg rating:** Based on body feelings, such as sweating, tired muscles, faster heart and breathing rates, you would say it was “somewhat hard.”





CALORIE CONTRAST

Sedentary	Moderate Intensity
70 or fewer calories per hour	210 to 420 calories per hour

If you get 60 minutes of moderate intensity physical activity instead of watching an extra hour of television each day, you will burn 980 to 2450 more calories in one week.

One pound of body weight equals 3500 calories.



CONDITIONS FOR

PHYSICAL ACTIVITY



1.

Indoor or Outdoor

2.

**Inexpensive or
Requiring Equipment**

3.

Little Space or Open Space

4.

**Done Individually or
Done With Others**



Physical Activity Cards List

Teacher Note: This teacher reference contains a list of the physical activities on the “Physical Activity Cards.” The teacher reference, “Calories Burned During Physical Activities,” provides an expanded list for your personal reference or to help you answer student questions.

- Sedentary: Activities burning 70 and fewer calories per hour
- Low-Intensity Activities: Activities between 71 and 211 calories per hour
- Moderate-Intensity Activities: Activities between 210 and 420 calories per hour
- Vigorous-Intensity Activities: Activities over 420 calories per hour

The purpose is to provide students with an array of different types of activities and levels of intensity they can choose from. The chart below indicates the calories burned for a 130-pound person. If a person weighs less, fewer calories will be burned. If a person weighs more, more calories will be burned.

Activity	Calories Burned Per Hour for a 130-Pound Person
Backpacking, general	413
Badminton, social, general	266
Basketball, game	472
Basketball, shooting baskets	266
Bicycling, less than 10 miles per hour, leisurely	236
Bicycling, 12-13.9 miles per hour, moderate effort	472
Bicycling, BMX or mountain.....	502
Bicycling, stationary, vigorous effort	620
Bowling	177
Boxing, punching bag	354
Calisthenics, pushups, sit-ups, vigorous effort	472
Canoeing, on camping trip.....	236
Canoeing, rowing, light effort.....	177
Child care: sitting/kneeling–dressing, feeding	177
Circuit training, general.....	472
Cleaning house, general.....	207
Dancing, aerobic, ballet or modern, twist	354
Dancing, general	266
Farming, baling hay, cleaning barn.....	472
Farming, shoveling grain	325
Football, touch, flag, general	472
Frisbee playing, general	177
Gardening, general.....	295
Golf, carrying clubs.....	325



Activity	Calories Burned Per Hour for a 130-Pound Person
Golf, miniature or driving range	177
Gymnastics, general.....	236
Hacky sack	236
Hiking, cross country	354
Hockey, field or ice	472
Horseback riding, general.....	236
Jogging, general	413
Judo, karate, kick boxing, tae kwan do.....	590
Kayaking.....	295
Marching band, playing instrument while walking	236
Mowing lawn, general.....	325
Mowing lawn, riding mower	148
Music playing, drums.....	236
Racquetball, casual, general	413
Racquetball, competitive	590
Raking lawn	236
Rock climbing, ascending rock.....	649
Rope jumping, moderate, general	590
Rowing, stationary, moderate effort.....	502
Running, 5 miles per hour (12-minute mile)	472
Running, stairs, up.....	885
Shoveling snow, by hand	354
Skateboarding	295
Skating, ice, general	413
Skating, roller.....	413
Skiing, cross-country, moderate effort	472
Skiing, water	354
Sledding, tobogganing, bobsledding, luge	413
Snorkeling.....	295
Snowmobiling	207
Soccer, casual, general	413
Softball or baseball, fast or slow pitch	295
Stair-treadmill ergometer, general	354
Stretching, hatha yoga.....	236
Sweeping garage, sidewalk.....	236
Swimming laps, freestyle, fast, vigorous effort	590
Swimming, leisurely, general	354
Table tennis, ping pong.....	236
Tai chi	236
Tennis, general	413
Volleyball, beach.....	472
Walking, 3.0 miles per hour, moderate pace, walking dog....	207
Walking, 4.0 miles per hour, very brisk pace.....	236
Walking, up stairs	472
Weight lifting or body building, vigorous effort.....	354
Weight lifting, light or moderate effort.....	177



Low-Intensity Physical Activities	Moderate-Intensity Physical Activities	Vigorous-Intensity Physical Activities
<ol style="list-style-type: none"> 1. Bowling 2. Canoeing, rowing, light effort 3. Child care: sitting/kneeling–dressing, feeding 4. Cleaning house, general 5. Frisbee playing, general 6. Golf, miniature or driving range 7. Mowing lawn, riding mower 8. Snowmobiling 9. Walking, 3.0 miles per hour, moderate pace, walking dog 10. Weight lifting, light or moderate effort 	<ol style="list-style-type: none"> 1. Backpacking, general 2. Badminton, social, general 3. Basketball, shooting baskets 4. Bicycling, less than 10 miles per hour, leisurely 5. Boxing, punching bag 6. Canoeing, on camping trip 7. Dancing, aerobic, ballet or modern, twist 8. Dancing, general 9. Farming, shoveling grain 10. Gardening, general 11. Golf, carrying clubs 12. Gymnastics, general 13. Hacky sack 14. Hiking, cross country 15. Horseback riding, general 16. Jogging, general 17. Kayaking 18. Marching band, playing instrument while walking 19. Mowing lawn, general 20. Music playing, drums 21. Racquetball, casual, general 22. Raking lawn 23. Shoveling snow, by hand 24. Skateboarding 25. Skating, ice, general 26. Skating, roller 27. Skiing, water 28. Sledding, tobogganing, bobsledding, luge 29. Snorkeling 30. Soccer, casual, general 31. Softball or baseball, fast or slow pitch 32. Stair-treadmill ergometer, general 33. Stretching, hatha yoga 34. Sweeping garage, sidewalk 35. Swimming, leisurely, general 36. Table tennis, ping pong 37. Tai chi 38. Tennis, general 39. Walking, 4.0 miles per hour, very brisk pace 40. Weight lifting or body building, vigorous effort 	<ol style="list-style-type: none"> 1. Basketball, game 2. Bicycling, 12-13.9 miles per hour, moderate effort 3. Bicycling, BMX or mountain 4. Bicycling, stationary, vigorous effort 5. Calisthenics, pushups, sit-ups, vigorous effort 6. Circuit training, general 7. Farming, baling hay, cleaning barn 8. Football, touch, flag, general 9. Hockey, field or ice 10. Judo, karate, kick boxing, tae kwan do 11. Racquetball, competitive 12. Rock climbing, ascending rock 13. Rope jumping, moderate, general 14. Rowing, stationary, moderate effort 15. Running, 5 miles per hour (12 minute mile) 16. Running, stairs, up 17. Skiing, cross-country, moderate effort 18. Swimming laps, freestyle, fast, vigorous effort 19. Volleyball, beach 20. Walking, up stairs



Conditions for Physical Activity

Indoor and/or Outdoor

Indoor

Outdoor

Could Be Indoor or Outdoor



Conditions for Physical Activity Inexpensive and/or Require Equipment

Inexpensive

--

**Require
Equipment**

--

**Could Be Inexpensive
or Require Equipment**

--



Conditions for Physical Activity

Little Space and/or Open Space

Little Space

Open Space

**Could Be Little Space
or Open Space**



Conditions for Physical Activity Done Individually and/or Done With Others

**Done
Individually**

**Done
With Others**

**Could Be Done Individually
or With Others**



Moderate-Intensity

Physical Activity

It is recommended that children and adolescents participate in at least 60 minutes of moderate- or vigorous-intensity physical activity daily. Moderate-intensity physical activity is any activity that burns 3.5 to 7 calories per minute (kcal/min). It refers to a level of effort in which a person should experience:

1. some increase in breathing or heart rate,
2. a “perceived exertion” of 11 to 14 on the Borg scale, or
3. 3 to 6 metabolic equivalents (METs).

Examples of moderate-intensity activities include:

- Walking briskly
- Golf, pulling or carrying clubs
- Swimming, recreational
- Mowing lawn, power motor
- Tennis, doubles
- Bicycling 5 to 9 mph, level terrain, or with a few hills
- Scrubbing floors or washing windows
- Weight lifting, Nautilus machines or free weights

Examples of vigorous-intensity activities include:

- Running/jogging (5 miles per hour)
- Walking very fast (4 ½ miles per hour)
- Bicycling (more than 10 miles per hour)
- Heavy yard work, such as chopping wood
- Swimming (freestyle laps)
- Aerobics
- Basketball (competitive)
- Tennis (singles)

Children and adolescents can choose moderate- or vigorous-intensity activities, or a mix of both each week. Activities can be considered vigorous, moderate, or light in intensity. This depends on the extent to which they make an individual breathe harder and his or her heart beat faster. Only moderate and vigorous intensity activities count toward meeting an individual’s physical activity needs. With vigorous activities, a person gets similar health benefits in half the time it takes a person with moderate ones. Although a person is moving, light intensity activities do not increase the heart rate and should not count towards meeting the physical activity recommendations. These activities include walking at a casual pace, such as while grocery shopping, and doing light household chores.



Three Types of Physical Activity Is Recommended for Young People

- *Aerobic activities* make you breathe harder and make your heart beat faster. Aerobic activities can be moderate or vigorous in their intensity. It is recommended that young people include vigorous-intensity activities on three days. Examples are brisk walking, jogging, and swimming.
- *Muscle-strengthening activities* make your muscles stronger. These include activities like push-ups and lifting weights. It is important to work all the different parts of the body — your legs, hips, back, chest, stomach, shoulders, and arms. It is recommended that young people include muscle-strengthening activities on three days.
- *Bone-strengthening activities* make your bones stronger. Bone strengthening activities, like jumping, are especially important for children and adolescents. These activities produce a force on the bones that promotes bone growth and strength. It is recommended that young people include bone-strengthening activities on three days.

NOTE: Look for additional information in the U.S. Department of Health and Human Services document, “2008 Physical Activity Guidelines for Americans.” It can be located on the U.S. Department of Health and Human Services website: www.health.gov/paguidelines.

Factors That Influence Physical Activity Among Young People

Research has shown that it is important to do the following to increase physical activity among young people:

- Acquaint youth with community physical activity opportunities.
- Provide positive role models for physical activity.
- Limit watching TV, using the computer, and playing video games to two hours per day.
- Identify organized group activities for youth.
- Increase youth’s perception of sports competence.
- Increase self esteem and self efficacy.
- Emphasize the fact that current behaviors impact health for life.
- Keep instruction about physical activity simple and clear.
- Provide sidewalks, bike lanes, and trails that connect the community.

Four Ways of Measuring Physical Activity Intensity

1. Talk Test

The talk test method of measuring intensity is simple. A person who is active at a light intensity level should be able to sing while doing the activity. One who is active at a moderate intensity level should be able to carry on a conversation comfortably while engaging in the activity. If a person becomes winded or too out of breath to carry on a conversation, the activity can be considered vigorous.

2. Target Heart Rate and Estimated Maximum Heart Rate

Another way of monitoring physical activity intensity is to determine whether a person’s pulse or heart rate is within the target zone during physical activity.



For moderate-intensity physical activity, a person's target heart rate should be 50 to 70% of his or her maximum heart rate. This maximum rate is based on the person's age. An estimate of a person's maximum age-related heart rate can be obtained by subtracting the person's age from 220. For example, for a 13-year-old person, the estimated maximum age-related heart rate would be calculated as $220 - 13 \text{ years} = 207$ beats per minute (bpm). The 50% and 70% levels would be:

- 50% level: $207 \times 0.50 = 103.5$ bpm, and
- 70% level: $207 \times 0.70 = 145$ bpm

Thus, moderate-intensity physical activity for a 13-year-old person will require that the heart rate remains between 103 and 145 bpm during physical activity.

3. Perceived Exertion (Borg Rating of Perceived Exertion Scale)

A third method of determining physical activity intensity is the Borg Rating of Perceived Exertion (RPE). Perceived exertion is how hard you feel like your body is working. It is based on the physical sensations a person experiences during physical activity, including increased heart rate, increased respiration or breathing rate, increased sweating, and muscle fatigue. Although this is a subjective measure, a person's exertion rating may provide a fairly good estimate of the actual heart rate during physical activity* (Borg, 1998).

Practitioners generally agree that perceived exertion ratings between 12 to 14 on the Borg Scale suggests that physical activity is being performed at a moderate level of intensity. During activity, use the Borg Scale to assign numbers to how you feel (see instructions below). Self-monitoring how hard your body is working can help you adjust the intensity of the activity by speeding up or slowing down your movements.

Through experience of monitoring how your body feels, it will become easier to know when to adjust your intensity. For example, a walker who wants to engage in moderate-intensity activity would aim for a Borg Scale level of "somewhat hard" (12-14). If he describes his muscle fatigue and breathing as "very light" (9 on the Borg Scale) he would want to increase his intensity. On the other hand, if he felt his exertion was "extremely hard" (19 on the Borg Scale) he would need to slow down his movements to achieve the moderate-intensity range.

*A high correlation exists between a person's perceived exertion rating times 10 and the actual heart rate during physical activity; so a person's exertion rating may provide a fairly good estimate of the actual heart rate during activity (Borg, 1998). For example, if a person's rating of perceived exertion (RPE) is 12, then $12 \times 10 = 120$; so the heart rate should be approximately 120 beats per minute. Note that this calculation is only an approximation of heart rate, and the actual heart rate can vary quite a bit depending on age and physical condition. The Borg Rating of Perceived Exertion is also the preferred method to assess intensity among those individuals who take medications that affect heart rate or pulse.

Instructions for Borg Rating of Perceived Exertion (RPE) Scale

While doing physical activity, we want you to rate your perception of exertion. This feeling should reflect how heavy and strenuous the exercise feels to you, combining all sensations and feelings of physical stress, effort, and fatigue. Do not concern yourself with any one factor such as leg pain or shortness of breath, but try to focus on your total feeling of exertion.



Look at the rating scale below while you are engaging in an activity; it ranges from 6 to 20, where 6 means “no exertion at all” and 20 means “maximal exertion.” Choose the number from below that best describes your level of exertion. This will give you a good idea of the intensity level of your activity, and you can use this information to speed up or slow down your movements to reach your desired range.

Try to appraise your feeling of exertion as honestly as possible, without thinking about what the actual physical load is. Your own feeling of effort and exertion is important, not how it compares to other people’s. Look at the scales and the expressions and then give a number.

- | | |
|---------------------------|-----------------------|
| • 6 No exertion at all | • 14 |
| • 7 Extremely light (7.5) | • 15 Hard (heavy) |
| • 8 | • 16 |
| • 9 Very light | • 17 Very hard |
| • 10 | • 18 |
| • 11 Light | • 19 Extremely hard |
| • 12 | • 20 Maximal exertion |
| • 13 Somewhat hard | |

Nine corresponds to “very light” exercise. For a healthy person, it is like walking slowly at his or her own pace for several minutes.

Thirteen on the scale is “somewhat hard” exercise, but it still feels OK to continue.

Seventeen, or “very hard,” is very strenuous. A healthy person can still go on, but he or she really has to push him- or herself. It feels very heavy, and the person is very tired.

Nineteen on the scale is an extremely strenuous exercise level. For most people this is the most strenuous exercise they have ever experienced.

4. Metabolic Equivalent (MET) Level

A fourth way of measuring physical activity intensity is by the metabolic equivalent, or MET, level. Although the intensity of certain activities is commonly characterized as light, moderate, or vigorous, many activities can be classified in any one or all three categories simply on the basis of the level of personal effort involved in carrying out the activity (i.e., how hard one is working to do the activity). The MET is used to estimate the amount of oxygen used by the body during physical activity (Ainsworth et al., 1993).

- One MET equals the energy (oxygen) used by the body as you sit quietly, perhaps while talking on the phone or reading a book. This equals approximately 70 calories per hour.
- The harder your body works during the activity, the higher the MET.
- Any activity that burns 3 to 6 METs is considered moderate-intensity physical activity. This equals 210 to 420 calories per hour.
- Any activity that burns > 6 METs is considered vigorous-intensity physical activity. This equals more than 420 calories per hour.

Adapted from CDC: <http://www.cdc.gov/nccdphp/dnpa/physical/everyone/measuring/index.htm>



Calories Burned During Physical Activities

Activity	Calories Burned Per Hour for a Person With This Body Weight		
	130lbs	155lbs	190lbs
Aerobics, general	354	422	518
Aerobics, high impact	413	493	604
Aerobics, low impact	295	352	431
Archery (non-hunting)	207	246	302
Automobile repair	177	211	259
Backpacking, general	413	493	604
Badminton, competitive	413	493	604
Badminton, social, general	266	317	388
Basketball, game	472	563	690
Basketball, nongame, general	354	422	518
Basketball, officiating	413	493	604
Basketball, shooting baskets	266	317	388
Basketball, wheelchair	384	457	561
Bicycling, less than 10 miles per hour, leisure	236	281	345
Bicycling, greater than 20 miles per hour, racing	944	1126	1380
Bicycling, 10-11.9 miles per hour, light effort	354	422	518
Bicycling, 12-13.9 miles per hour, moderate effort	472	563	690
Bicycling, 14-15.9 miles per hour, vigorous effort	590	704	863
Bicycling, 16-19 miles per hour, very fast, racing	708	844	1035
Bicycling, BMX or mountain	502	598	733
Bicycling, stationary, general	295	352	431
Bicycling, stationary, light effort	325	387	474
Bicycling, stationary, moderate effort	413	493	604
Bicycling, stationary, very light effort	177	211	259
Bicycling, stationary, very vigorous effort	738	880	1078
Bicycling, stationary, vigorous effort	620	739	906
Billiards	148	176	216
Bowling	177	211	259
Boxing, in ring, general	708	844	1035
Boxing, punching bag	354	422	518
Boxing, sparring	531	633	776
Broomball	413	493	604
Calisthenics, pushups, sit-ups, vigorous effort	472	563	690
Calisthenics, home, light/moderate effort	266	317	388
Canoeing, on camping trip	236	281	345
Canoeing, rowing, greater than 6 miles per hour, vigorous effort	708	844	1035



	130lbs	155lbs	190lbs
Canoeing, rowing, crewing, competition	708	844	1035
Canoeing, rowing, light effort	177	211	259
Canoeing, rowing, moderate effort	413	493	604
Carpentry, general	207	246	302
Carrying heavy loads, such as bricks	472	563	690
Child care: sitting/kneeling—dressing, feeding	177	211	259
Child care: standing—dressing, feeding	207	246	302
Circuit training, general	472	563	690
Cleaning, heavy, vigorous effort	266	317	388
Cleaning, house, general	207	246	302
Cleaning, light, moderate effort	148	176	216
Coaching: football, soccer, basketball, etc.	236	281	345
Construction, outside, remodeling	325	387	474
Cooking or food preparation	148	176	216
Cricket (batting, bowling)	295	352	431
Croquet	148	176	216
Curling	236	281	345
Dancing, aerobic, ballet or modern, twist	354	422	518
Dancing, ballroom, fast	325	387	474
Dancing, ballroom, slow	177	211	259
Dancing, general	266	317	388
Darts, wall or lawn	148	176	216
Diving, springboard or platform	177	211	259
Electrical work, plumbing	207	246	302
Farming, baling hay, cleaning barn	472	563	690
Farming, milking by hand	177	211	259
Farming, shoveling grain	325	387	474
Fencing	354	422	518
Fishing from boat, sitting	148	176	216
Fishing from river bank, standing	207	246	302
Fishing in stream, in waders	354	422	518
Fishing, general	236	281	345
Fishing, ice, sitting	118	141	173
Football or baseball, playing catch	148	176	216
Football, competitive	531	633	776
Football, touch, flag, general	472	563	690
Frisbee playing, general	177	211	259
Frisbee, ultimate	207	246	302
Gardening, general	295	352	431



	130lbs	155lbs	190lbs
Golf, carrying clubs	325	387	474
Golf, general	236	281	345
Golf, miniature or driving range	177	211	259
Golf, pulling clubs	295	352	431
Golf, using power cart	207	246	302
Gymnastics, general	236	281	345
Hacky sack	236	281	345
Handball, general	708	844	1035
Handball, team	472	563	690
Health club exercise, general	325	387	474
Hiking, cross country	354	422	518
Hockey, field	472	563	690
Hockey, ice	472	563	690
Horse grooming	354	422	518
Horse racing, galloping	472	563	690
Horseback riding, general	236	281	345
Horseback riding, trotting	384	457	561
Horseback riding, walking	148	176	216
Hunting, general	295	352	431
Jai alai	708	844	1035
Jogging, general	413	493	604
Judo, karate, kick boxing, tae kwan do	590	704	863
Kayaking	295	352	431
Kickball	413	493	604
Lacrosse	472	563	690
Marching band, playing instrument while walking	236	281	345
Marching, rapidly, military	384	457	561
Moto-cross	236	281	345
Moving furniture, household	354	422	518
Moving household items, boxes, upstairs	531	633	776
Moving household items, carrying boxes	413	493	604
Mowing lawn, general	325	387	474
Mowing lawn, riding mower	148	176	216
Music playing, cello, flute, horn, woodwind	118	141	173
Music playing, drums	236	281	345
Music playing, guitar, classical, folk (sitting)	118	141	173
Music playing, guitar, rock/roll band (standing)	177	211	259
Music playing, piano, organ, violin, trumpet	148	176	216
Paddleboat	236	281	345



	130lbs	155lbs	190lbs
Painting, papering, plastering, scraping	266	317	388
Polo	472	563	690
Pushing or pulling stroller with child	148	176	216
Race walking	384	457	561
Racquetball, casual, general	413	493	604
Racquetball, competitive	590	704	863
Raking lawn	236	281	345
Reading	62	74	90
Rock climbing, ascending rock	649	774	949
Rock climbing, rapelling	472	563	690
Rope jumping, fast	708	844	1035
Rope jumping, moderate, general	590	704	863
Rope jumping, slow	472	563	690
Rowing, stationary, light effort	413	493	604
Rowing, stationary, moderate effort	502	598	733
Rowing, stationary, very vigorous effort	708	844	1035
Rowing, stationary, vigorous effort	561	669	819
Rugby	590	704	863
Running, 10 miles per hour (6 minute mile)	944	1126	1380
Running, 10.9 miles per hour (5.5 minute mile)	1062	1267	1553
Running, 5 miles per hour (12 minute mile)	472	563	690
Running, 5.2 miles per hour (11.5 minute mile)	531	633	776
Running, 6 miles per hour (10 minute mile)	590	704	863
Running, 6.7 miles per hour (9 minute mile)	649	774	949
Running, 7 miles per hour (8.5 minute mile)	679	809	992
Running, 7.5 miles per hour (8 minute mile)	738	880	1078
Running, 8 miles per hour (7.5 minute mile)	797	950	1165
Running, 8.6 miles per hour (7 minute mile)	826	985	1208
Running, 9 miles per hour (6.5 minute mile)	885	1056	1294
Running, cross country	531	633	776
Running, general	472	563	690
Running, in place	472	563	690
Running, on a track, team practice	590	704	863
Running, stairs, up	885	1056	1294
Running, training, pushing wheelchair	472	563	690
Running, wheeling, general	177	211	259
Sailing, boat/board, windsurfing, general	177	211	259
Sailing, in competition	295	352	431
Scrubbing floors, on hands and knees	325	387	474



	130lbs	155lbs	190lbs
Shoveling snow, by hand	354	422	518
Shuffleboard, lawn bowling	177	211	259
Sitting-playing with child(ren)-light	148	176	216
Skateboarding	295	352	431
Skating, ice, 9 miles per hour or less	325	387	474
Skating, ice, general	413	493	604
Skating, ice, rapidly, greater than 9 miles per hour	531	633	776
Skating, ice, speed, competitive	885	1056	1294
Skating, roller	413	493	604
Ski jumping (climb up carrying skis)	413	493	604
Ski machine, general	561	669	819
Skiing, cross-country, greater than 8.0 miles per hour, racing	826	985	1208
Skiing, cross-country, moderate effort	472	563	690
Skiing, cross-country, slow or light effort	413	493	604
Skiing, cross-country, uphill, maximum effort	974	1161	1423
Skiing, cross-country, vigorous effort	531	633	776
Skiing, downhill, light effort	295	352	431
Skiing, downhill, moderate effort	354	422	518
Skiing, downhill, vigorous effort, racing	472	563	690
Skiing, snow, general	413	493	604
Skiing, water	354	422	518
Ski-mobiling, water	413	493	604
Skin diving, scuba diving, general	413	493	604
Sledding, tobogganing, bobsledding, luge	413	493	604
Snorkeling	295	352	431
Snow shoeing	472	563	690
Snowmobiling	207	246	302
Soccer, casual, general	413	493	604
Soccer, competitive	590	704	863
Softball or baseball, fast or slow pitch	295	352	431
Softball, officiating	354	422	518
Squash	708	844	1035
Stair-treadmill ergometer, general	354	422	518
Standing-packing/unpacking boxes	207	246	302
Stretching, hatha yoga	236	281	345
Surfing, body or board	177	211	259
Sweeping garage, sidewalk	236	281	345
Swimming laps, freestyle, fast, vigorous effort	590	704	863
Swimming laps, freestyle, light/moderate effort	472	563	690



	130lbs	155lbs	190lbs
Swimming, backstroke, general	472	563	690
Swimming, breaststroke, general	590	704	863
Swimming, butterfly, general	649	774	949
Swimming, leisurely, general	354	422	518
Swimming, sidestroke, general	472	563	690
Swimming, synchronized	472	563	690
Swimming, treading water, fast/vigorous	590	704	863
Swimming, treading water, moderate effort	236	281	345
Table tennis, ping pong	236	281	345
Tai chi	236	281	345
Teaching aerobics class	354	422	518
Tennis, doubles	354	422	518
Tennis, general	413	493	604
Tennis, singles	472	563	690
Unicycling	295	352	431
Video games	62	74	90
Volleyball, beach	472	563	690
Volleyball, competitive, in gymnasium	236	281	345
Volleyball, noncompetitive; 6-9 member team	177	211	259
Walk/run-playing with child(ren)-moderate	236	281	345
Walk/run-playing with child(ren)-vigorous	295	352	431
Walking, 2.0 miles per hour, slow pace	148	176	216
Walking, 3.0 miles per hour, moderate pace, walking dog	207	246	302
Walking, 3.5 miles per hour, uphill	354	422	518
Walking, 4.0 miles per hour, very brisk pace	236	281	345
Walking, carrying infant or 15-lb load	207	246	302
Walking, grass track	295	352	431
Walking, upstairs	472	563	690
Walking, using crutches	236	281	345
Wallyball, general	413	493	604
Watching TV, lying down	62	74	90
Water aerobics, water calisthenics	236	281	345
Water polo	590	704	863
Water volleyball	177	211	259
Weight lifting or body building, vigorous effort	354	422	518
Weight lifting, light or moderate effort	177	211	259
Whitewater rafting, kayaking, or canoeing	295	352	431

Sources: <http://www.nutristrategy.com/activitylist4.htm> and other online calorie calculators



Finding Time and Motivation for Physical Activity

List some activities you could do with your family or some of your family members.

Find time that isn't committed to other things. List a few options.

List opportunities you have to walk or bike to and from regular destinations instead of riding in a car.

List some activities you could do with your friends.



What are some ways you could encourage one another?

Children and teens need 60 minutes of moderate to vigorous physical activity each day.

Adults need 2 1/2 hours a week of moderate physical activity OR 1 1/4 hours a week of vigorous physical activity.

Sometimes finding the time and motivation to be physically active can be a challenge. It helps if you have someone or a group to be active with.

If weight loss is a goal, increase the amount of physical activity and reduce foods high in calories and low in nutrients.

Talk with at least one member of your family about your ideas. See if he or she will join you. Set a date to begin.

Start date: _____

Talk with at least one friend about your ideas. See if he or she will join you. Set a date to begin.

Start date: _____

Finding Time and Motivation for Physical Activity

Sign below and have your family member and friend sign, too! Your signatures mean that you have talked about these ideas together.

Signature of a Family Member

Signature of a Friend

Student Signature

